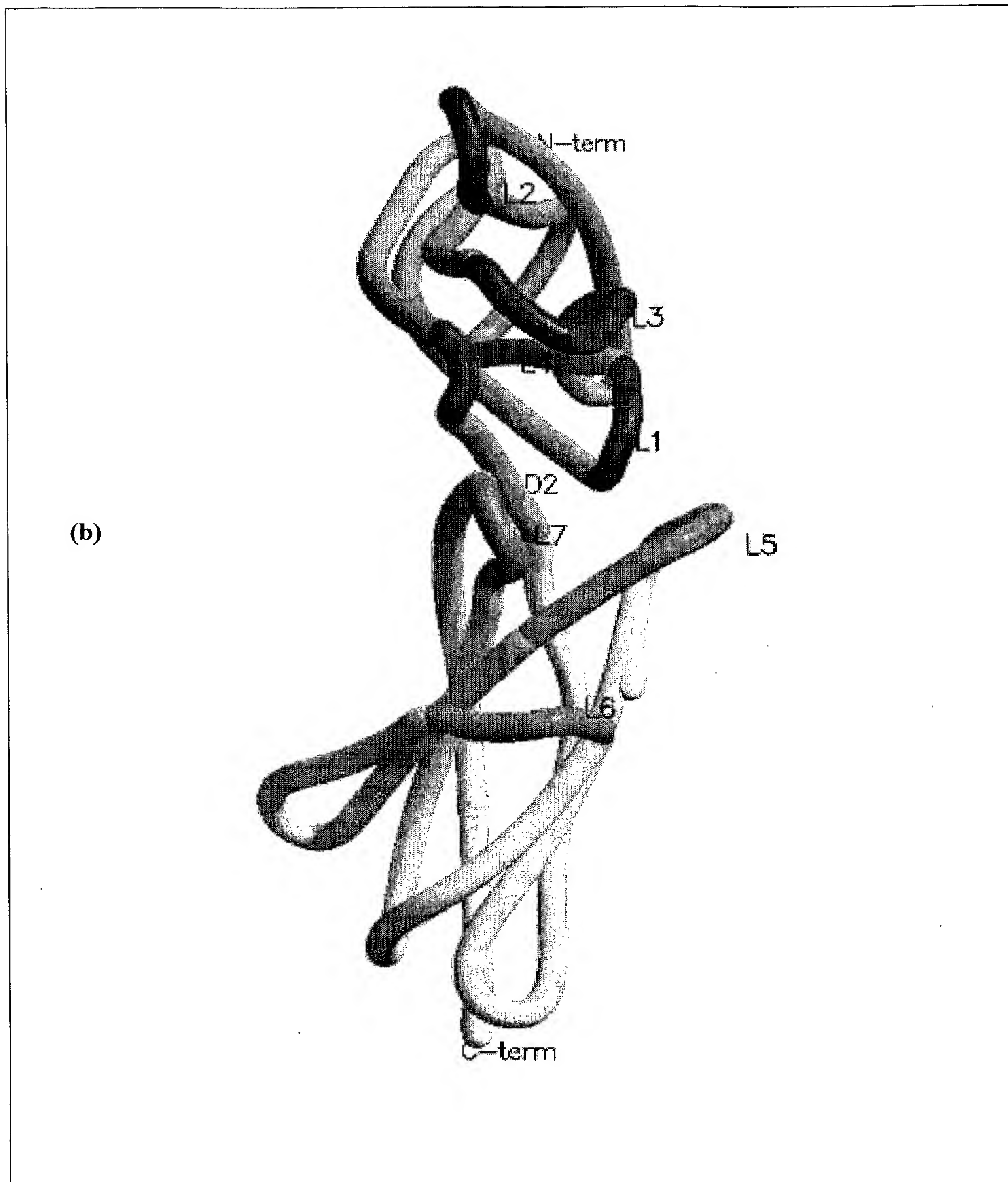
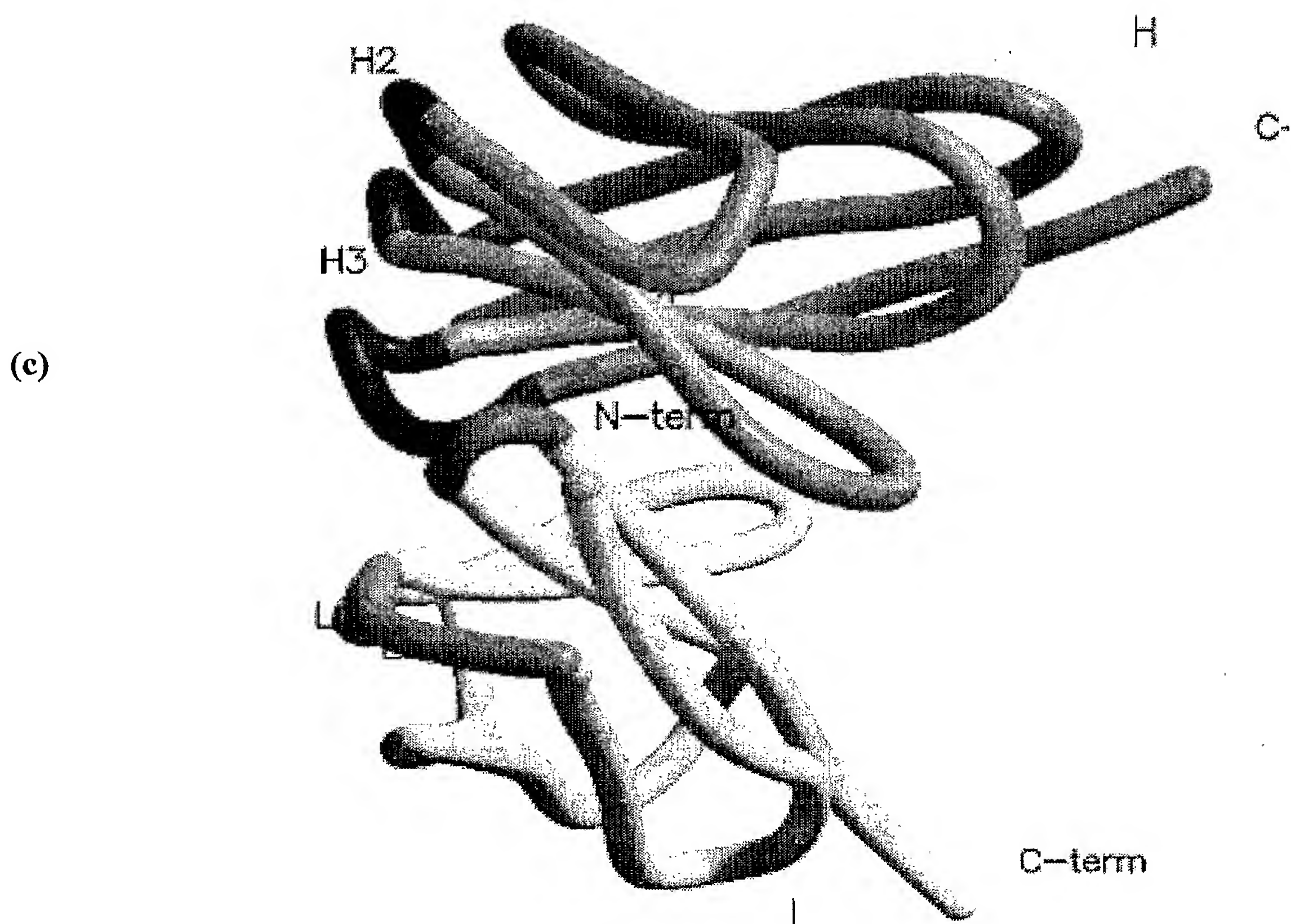


**Figure 1(a)**

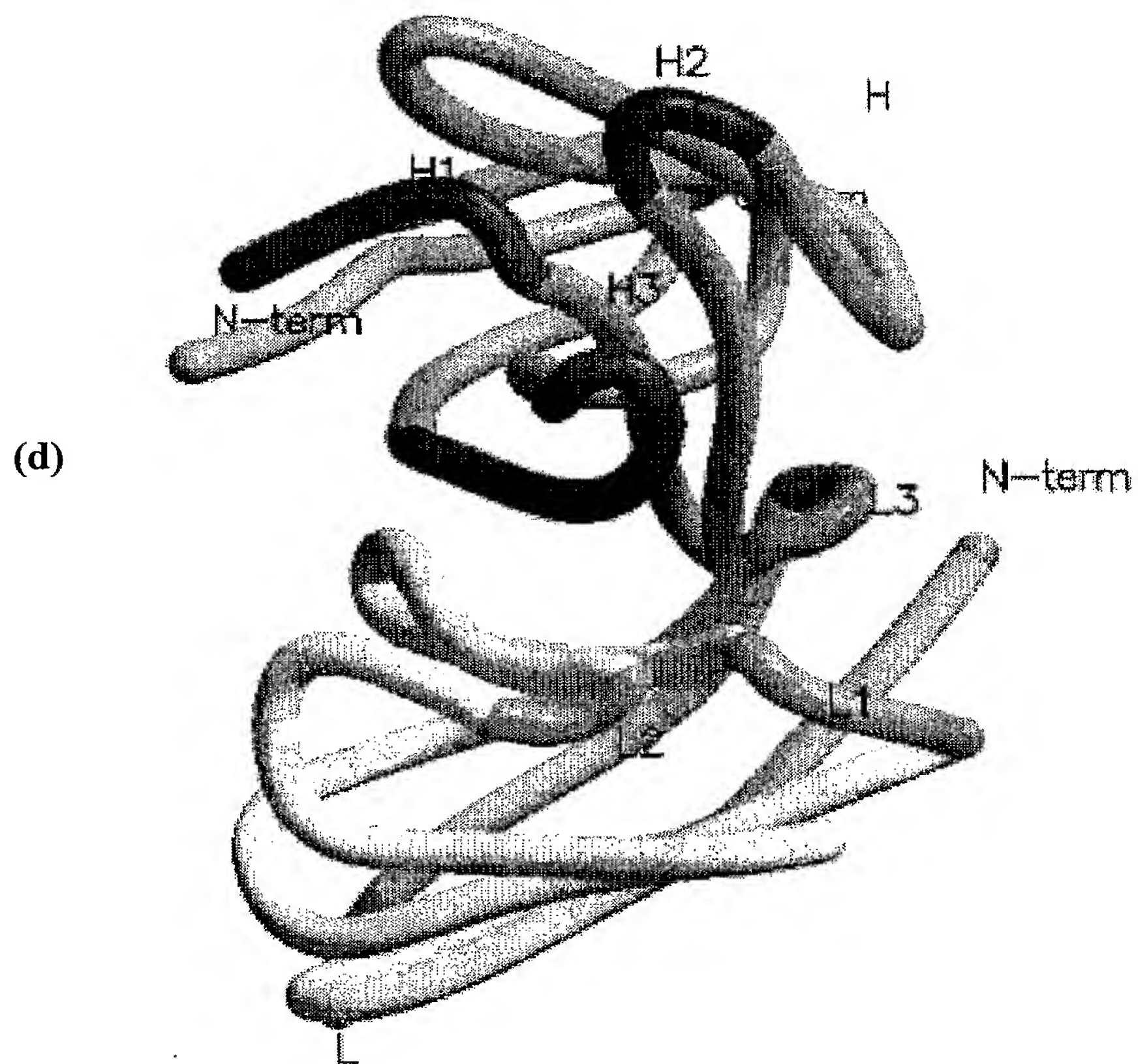
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**Figure 1(b)**

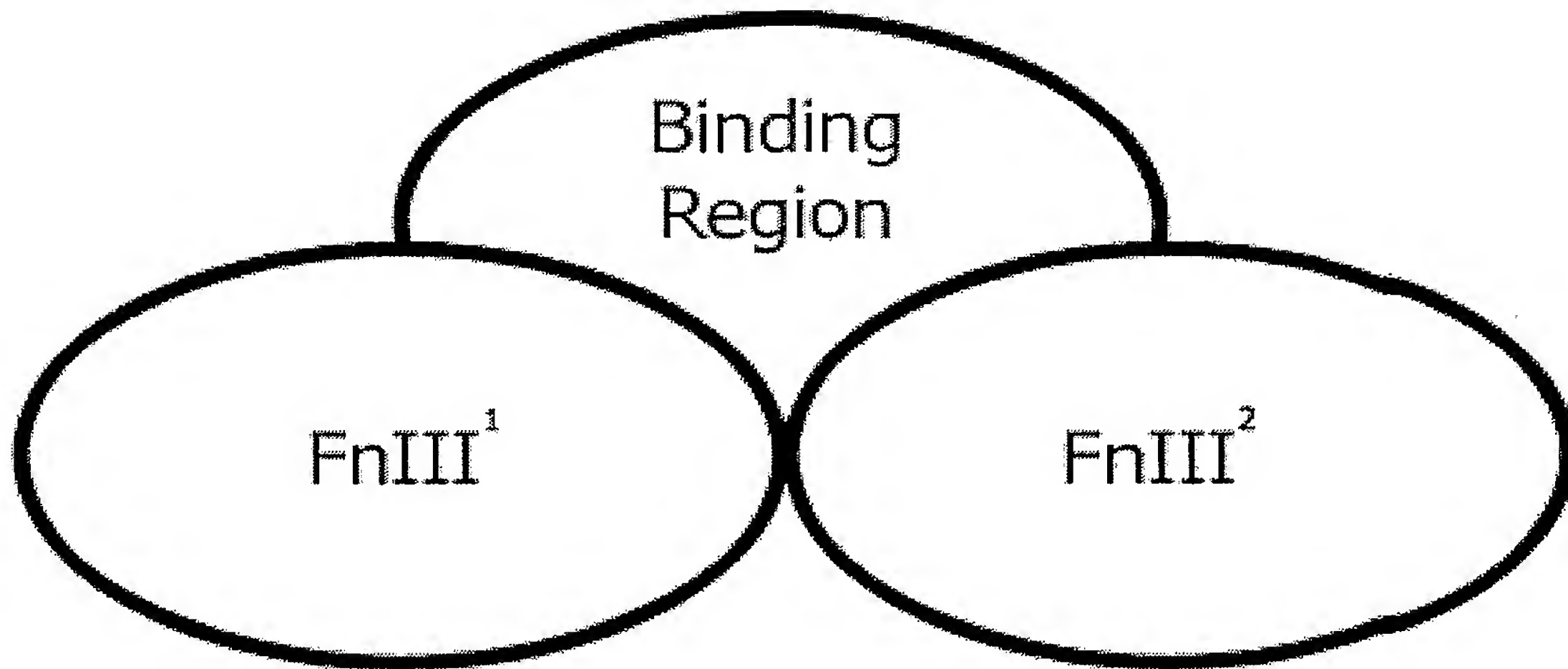
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**Figure 1(c)**

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**Figure 1(d)**

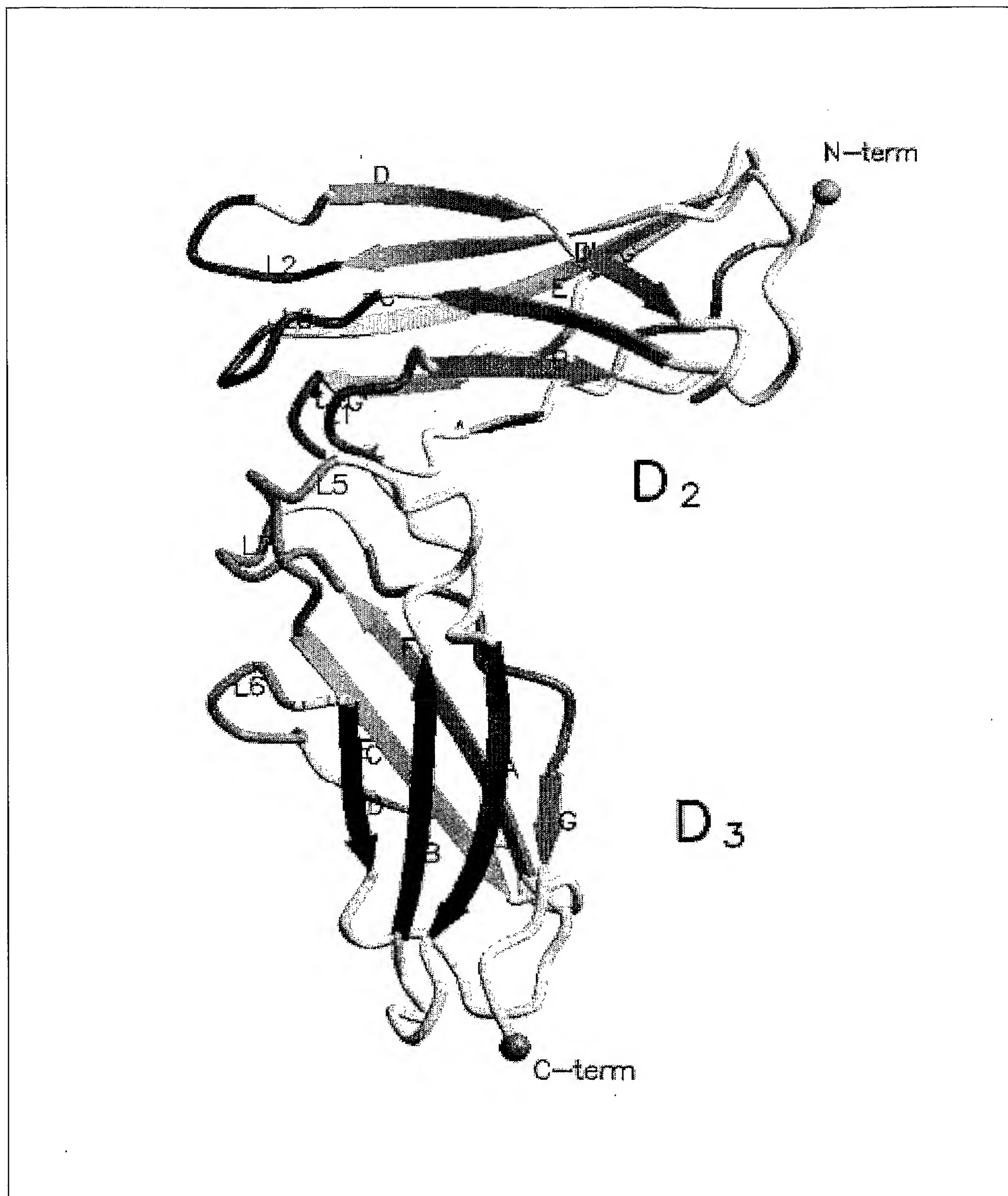
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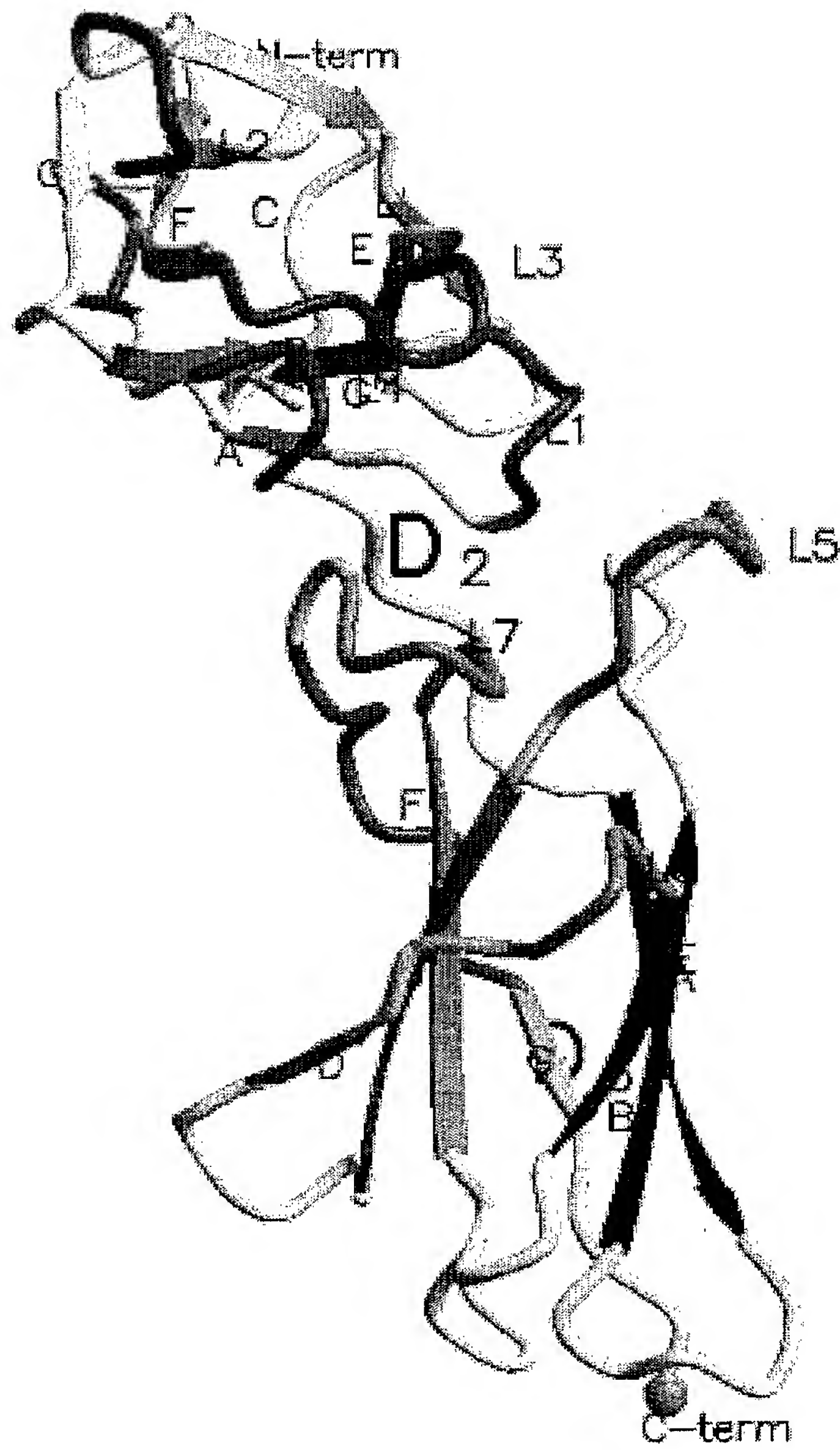
**Figure 1A**



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**Figure 2(a)**

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**Figure 2(b)**

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10 20 30 40 50  
LAPRRCPAQE VARGVLTSLP GDSVTLTCPG VEPEDNATVH WVLRKPAAGS

60 70 80 90 100  
HPSRWAGMGR RLLLRVQLH DSGNYSCYRA GRPAGTVHLL VDVPPPEEPQLS  
A#

110 120 130 140 150  
CFRKSPLSNV VCEWGPRSTP SLTTKAVLLV RKFQNSPAED FQEPCQYSQE  
##### D, D' #####  
\*\*\*\*\*  
L1 L2

160 170 180 190 200  
SQKFSCQLAV PEGDSSFYIV SMCVASSVGS KFSKTQTFQG CGILQPDPPA  
#####  
E##### F##### G##### G'##### A#  
\*\*\*\*\*  
L3 L4

210 220 230 240 250  
NITVTAVARN PRWLSVTWQD PHSWNSSFYR LRFELRYRAE RSKTFTTWMV  
#####  
##### B##### C##### D#####  
\*\*\*\*\*  
L5

260 270 280 290 300  
KDLQHHCVIH DAWSGLRHVQ QLRAQEEFGQ GEWSEWSPEA MGTPWTESRS  
#####  
E##### F##### G#####  
\*\*\*\*\*  
L6 L7

310 320  
PPAENEVSTP MQALTTNKDD DNIL

# beta sheets; \* loops; ■■■ first domain (D2); □□□ second domain (D3)

Figure 3



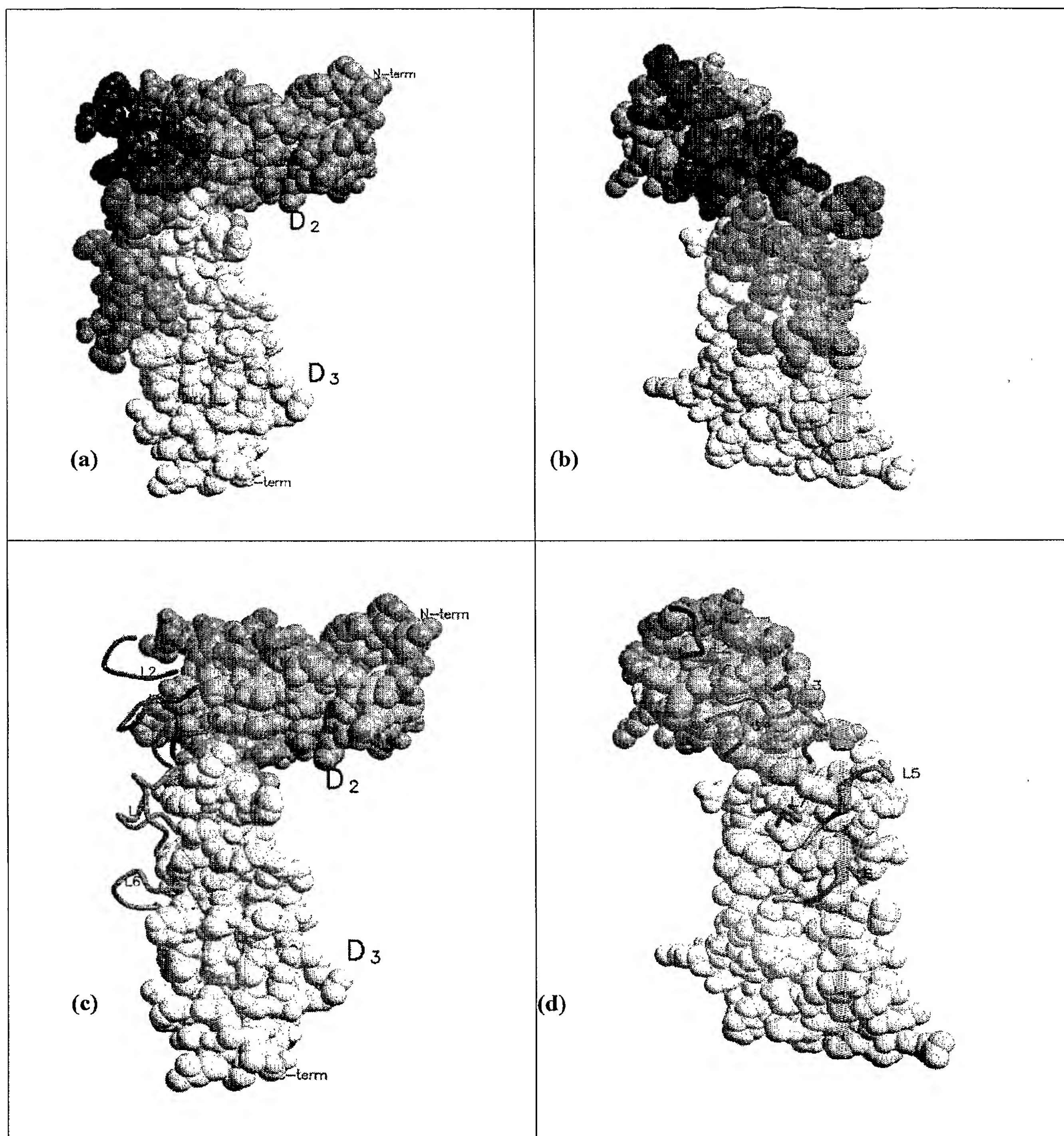
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Approximate positioning of each loop in four of the cytokine receptor family members. The loop positions could vary up to 3 amino acids either side of the box. For example Loop 6 of the prolactin receptor is defined as GQQTEF and not FAQQ as depicted here.

IL6RPRLRL	-----	VPPEEPQ-LSCFSPNK-ET	FVCEWGPRSTPSLT	TK
P08887 IL6A_HUMAN	LHDSGNYSYCY-RAGRPAGTVHLLV	VPPEEPQ-LSCFRKSP	LSNVVCEWGPRSTPSLT	TK
Q14626 I11R_HUMAN	STDEGTIYCQTL	DGALGGTVTLQL	YPPARPV-VSCQAADY-EN	FSCTWSPSQISGLPTR
P16471 PRLR_HUMAN	MKENVASATVFTLL	LLFLNTCLLNG	LPPGKPEIFKCRSPNK-ET	FTCWWRP
Q99062 GCSR_HUMAN	-AFLSCCLNWGNSLQILDQVELRA	YPPAIPHNLSCLMNL	ETSSSLICQWEPGPETHLPTS	
IL6RPRLRL	AVLLVHRE-----	GETLMFQEP	CQYSQESQKFSCHEG	GKQYTSMWRTYIVSMSVASS
P08887 IL6A_HUMAN	AVLLVRKFQN-----	SPAEDFQEP	CQYSQESQKFSCQLAV	PEGD-SSFYIVSMCVASS
Q14626 I11R_HUMAN	YLTSYRKKT	TVLGADSQRRSP	STGWPWPCPD-PLGAARCVV	HGAEFW--SQYRINVTEVNP
P16471 PRLR_HUMAN	YSLTYHRE-----	GETLMHECPDYITGGPNSCHEG	GKQYTSMWRTYIMMVNATNQ	
Q99062 GCSR_HUMAN	FTLKSFKSRNC-----	QTQGDSILDCVPK-DGQSHCCIP	PRKHLLLYQNMGIWVQAENAL	
IL6RPRLRL	VGSKFSDELYVDVTYI	ILQPDPPANITVTAVA-RNPR---	WLSVTWQDPHLID	DLK-TGWFT
P08887 IL6A_HUMAN	VGSKFSKTQTE	QGCGILQPDPPANITVTAVA-RNPR---	WLSVTWQDPHSWNSS---	FYR
Q14626 I11R_HUMAN	-LGASTRLLDV	SLQSIILRPDPPQGLRVESVP-GYPR---	RLRASWTYPASWPCQ--	PHFL
P16471 PRLR_HUMAN	MGSSFSDELYVDVTYI	IVQPDPPLELAVEVKQ-PEDR-KPYLWIKWSPPTLID	DLK-TGWFT	
Q99062 GCSR_HUMAN	GTSMSPTLCLD	PMDVVKLEPPMLRTMDPSPEAAPQAGCLQLCWEPWQPG	LHINQKCEL	
IL6RPRLRL	LRFEELRYRAERSKTFTTWE	FAG-QQHHSVIHDAWSGLRHVVQLRAKPD--	HGYWSEWSPEA	
P08887 IL6A_HUMAN	LRFEELRYRAERSKTFTTW	MVKDLQHHCVIHDAWSGLRHVVQLRAQEEFGQGEWSEWSPEA		
Q14626 I11R_HUMAN	LKFERLQYRPAQH	PAWSTVEPAG--LEEVI	TDAVAGLPHAVRVSARDFLDAGTWSTWSPEA	
P16471 PRLR_HUMAN	LLYEIRLKPEKAAEWEI	HFAGQ-QTEFKILSLHPGQKYLQVRCKPD--	HGYWSAWSPAT	
Q99062 GCSR_HUMAN	RHKPQGEASWALVGPLP	LEAL-QYELCGLLP--ATAYTLQIRCI	RWPLPGHWSDWSPSL	
IL6RPRLRL	MGTPWTE	-----		
P08887 IL6A_HUMAN	MGTPWTE	RSPPAENEVST-----	PMQALTTN---	KDDDNILFRDSANATSLPVQ
Q14626 I11R_HUMAN	WGTPSTG	IPKEIPAWGQL-----	HTQPEVEP---	QVDSAPP
P16471 PRLR_HUMAN	FIQIPSD	TMNDTTVWISVAVLSAVICLIIVWAVALKGYSMVTCIFPPVPGPKIKGFD	DAH	
Q99062 GCSR_HUMAN	ELRTTER	PTVRLDTWWRQR-QLDPRTVQLFWKVPVPLEEDSGRIQGYVVS-WRPSGQAGA		

Figure 3A

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**Figure 4**



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mGCSF_122-334	YFVASF-SN	SCMHL	TINSVCOEEDGETHL
hGCSF_121-333	YFVATF-HN	SCMNL	TESSVICOEDGETHL
hcommBR_26-240	ETVPTOT	RCNDY	TSHTCRADTQDAQR
mcommBR_30-243	ETVPTOT	QCNDY	TNHVICSADTEDAQG
mIL3BR_30-244	ETVPTOT	ECNDY	TNHVICSADTEDAQG
hcommBR_240-439	GDEAQQ-QN	ECFDC	RAVSCSEERKEVAS
mcommBR_243-442	GDKAQEQN	OCFDC	QSHHCSDEWTQTTG
mIL3BR_244-441	GDKAQEQN	OCFDC	QSHHCSDEWTQTTG
hgp130_124-325	LPDEKE-KN	SCVNE	QKKRCESDGCRETHL
mgp130_124-323	FPEDKE-TN	TCVNE	QKNLCQDQGRETYL
hGHR_46-262	NSSKEE-K	TKCRSE	RETSCHTDEVHNGTK
mILGHR_46-271	SSSEKE-R	TKCRSE	RETSCYTEGDNEIDLK
hIL12p40_122-328	EPKNTF	RCEAKN	SGRTCTWLTITITDL
mIL12p40_119-332	NFKNTF	KCEAKN	SGRTCTWLTITITDL
hEPOR_39-247	AAALSRQS-EE	LCRTOR	REDVCFEESAASAGV
mEPOR_39-246	AAALSRQS-EE	LCRTOR	REDVCFEESAASAGV
hIL6R_112-317	VPDEEE-Q	SCRKS	QSNVCEGHRSTSL
mIL6R_108-313	VPDEEE-K	SCRKN	QSNVCEGHRSTSL
hIL4R_24-224	LNMYQE	TCSDY	ASISTCEKKNCTNC
mIL4R_24-225	GSIKQE	TCSDY	ARTSTCEFDSDAVDC
hPRLR_24-229	GOLPQKE-EE	FKCRSE	KETCTCWREGTDEGL
mPRLR_19-224	GOLPQKE-EE	FKCRSE	KETCTCWREGTDEGL
hCRLF1_133-342	LPDEKE-VN	SCSRN	QKDTCTCTEGAGGETF
mCRLF1_136-345	LPDEKE-FN	SCSRN	QKDTCTCTEGAGGETF
hIL12B2R_122-320	VDEEQE-QN	SCQKE	EQCTACTEGRDTHLY
mIL12B2R_135-336	VDEEQE-QN	SCQKE	EQCTACTEGRDTHLY
hIL11R_111-318	YFVATF-V	SCQAD	QENSCISPSQISOL
mIL11RA1_111-318	FPFARD-E	SCQAVD	QENSCISPSQISOL
mIL11RA2_111-318	FPFARD-E	SCQAVD	QENSCISPSQISOL
hCNTFR_107-317	LPDEEE-V	SCRSNT	QKCYCSHETETTYI
mCNTFR_107-317	LPDEEE-V	SCRSNT	QKCYCSHETETTYI
hCR_23-229	GFPAATL-R	QCRASR	QIADCSHETETTYI
mCR_23-228	GFPAATL-R	QCRASR	QIADCSHETETTYI
hthromboR_27-285	DSEASDSE	KCSRT	QEDTCFDEEEAAPS
mthromboR_27-277	DSEASDSE	KCSRT	QEDTCFDEEEAAPS
hleptinR_429-638	DNIN	SCETDC	QTKTCRSTSTIQSLA
mleptinR_427-636	DNIN	SCETDC	QTKTCRSTSTIQSLA
hleptinR_124-332	DNIN	SCETDC	QTKTCRSTSTIQSLA
mleptinR_124-330	DNIN	SCETDC	QTKTCRSTSTIQSLA
hIL21R_17-229	GWGCDP	VC TDY	QOTVCIENHNLHPS
mIL21R_17-229	GWGCDP	VC TDY	QOTVCIENHNLHPS
hthromboR_285-490	AWSCLD	TC TDY	QWTTCVETRSNPS
mthromboR_277-481	AWSCLD	TC TDY	QWTTCVETRSNPS
hwsx1_34-232	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mwsx1_29-226	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL2BR_30-235	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL2BR_30-236	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL9R_48-261	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL9R_47-261	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL12B1R_42-234	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL12B1R_43-256	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL13A1R_123-337	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL13A1R_121-333	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL13A2R_134-333	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL13A2R_128-327	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL5R_123-332	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL5R_120-329	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hGMCSEF_115-348	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mGMCSEF_124-352	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL3R_100-292	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL3R_113-322	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hcommGR_39-253	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mcommGR_39-254	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hTSLPR_30-216	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mTSLPR_27-217	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hLIFR_48-246	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mLIFR_47-241	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hLIFR_331-534	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mLIFR_326-529	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hOSMR_25-140	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mOSMR_25-139	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hOSMR_235-429	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mOSMR_232-426	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hIL7R_28-236	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mIL7R_28-236	GSFQ	OCVVG	QKMTCCQOODRTSSQ
domacyt1_115-330	GSFQ	OCVVG	QKMTCCQOODRTSSQ
domacyt2_176-391	GSFQ	OCVVG	QKMTCCQOODRTSSQ
consensus	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hGLMR	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mGLMR	GSFQ	OCVVG	QKMTCCQOODRTSSQ
mChirica_cedric	GSFQ	OCVVG	QKMTCCQOODRTSSQ
hChirica	GSFQ	OCVVG	QKMTCCQOODRTSSQ
ruler	1.....10.....20.....30.....40.....50.....		

Figure 5A



[illegible]

### Figure 5A (cont)



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KNLILLYQYNAWYQENMGSSESSEKLCEDMDKKEEPM-YQALDISCEDVY 122  
 KHLILLYQYNAWYQENMGSSESSEKLCEDMDKKEEPM-LRRTMDISPEAA 123  
 QSFVVTOVDYSSQDRY--LQTRLTVTET--QFQFEPDRDQSTDO---- 120  
 TRFSITNEDYSSRDS----DLQIQLMFAQNTQFQFKNYSSESSE---- 119  
 TRFSNNDNDYSSQDRY--DLQIQLMFAQNTQFQFKNYSSESSE---- 120  
 FQATHQOYISQF-----RRAEKHRSVNVCHAPPS-LNTHD----- 112  
 PERSAHSQYSSKLE-----QCKEAMSYNHQEPDT-LNTHNR----- 113  
 PERSAHSQYSSKLE-----QCKEAMSYNHQEPDT-LNTHNR----- 112  
 -STVYFVNNEWYQENMGSSESSEKLCEDMDKKEEPM-SVINSEELS- 114  
 -MYTYVNEWYQENMGSSESSEKLCEDMDKKEEPM-SVINSEELS- 112  
 SFTSIWIRYCKKTSN-----QTVDEKCSDEQFQFKNYSSESSE---- 119  
 SYTSIWIRYCKKTSN-----QTVDEKCSDEQFQFKNYSSESSE---- 127  
 PAAMESLPEDMDVHKQ-KYENYSTSFERDQKDDKKNQKELK----- 126  
 ETABETLEWYQENMGSSESSEKLCEDMDKKEEPM-QKELK----- 128  
 ADTSSFVDEARTEAS-----QARYHRVHNEFLADAVGVARLADES-- 121  
 ADTSSFVDEARTEAS-----QARYHRVHNEFLADAVGVARLADES-- 120  
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 -LEQDKVYISQASSSSSKTQOTQOCEQFQFKNYSSESSE---- 120  
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 -REVQSDRQWAG-----QQLLWKGSKSEKERNQNTHTNVS---- 114  
 QYTSMWRTIMNTNQSSSFSELYDITYQFQFKNYSSESSE---- 119  
 QYTSIWIRYCKKTSN-----QTVDEKCSDEQFQFKNYSSESSE---- 118  
 -DLALFTWYQENMGSSESSEKLCEDMDKKEEPM-SRVGG----- 116  
 -DLALFTWYQENMGSSESSEKLCEDMDKKEEPM-SRVGG----- 116  
 --ESSESNTKTAVNSSSSSSLESTTOLDQFQFKNYSSESSE---- 117  
 --DLAESRIRTEINDQSSSLESTTOLDQFQFKNYSSESSE---- 120  
 --AEFWSEIRTEINDQSSSLESTTOLDQFQFKNYSSESSE---- 123  
 --AEFWSEIRTEINDQSSSLESTTOLDQFQFKNYSSESSE---- 123  
 --AEFWSEIRTEINDQSSSLESTTOLDQFQFKNYSSESSE---- 123  
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 MHLFSTIKKSSSSSNAL--HNATAITDEFTKEDDENVAREVPSN-- 112  
 VQLFSMAFVNTTAVH--SSSSFVEITEHAKEDDENVAREVPSN-- 121  
 VHLFSTIKKSSSSSNAL--HNATAITDEFTKEDDENVAREVPSN-- 118  
 -QEEVRLFTWYQENMGSSESSEKLCEDMDKKEEPM-MGGSQF-- 121  
 -QDEVRLFTWYQENMGSSESSEKLCEDMDKKEEPM-MGGSQF-- 121  
 --IFLLSGTWRNHSGLSDSPETCLDSKELPSSSKETITN-- 122  
 --IFLLSGTWRNHSGLSDSPETCLDSKELPSSSKETITN-- 123  
 -TAKLNDTILYCKTSSGVIFQSPILMSQFQFKNYSSESSE---- 127  
 -RAKLNYALYCKTSSGVIFQSPILMSQFQFKNYSSESSE---- 126  
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 --QFLSDEVNTDQSSGNSQEGCSVAESKAPLBNATAFS-- 115  
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 -RNDSEIHLLENTAQVHSYLSSEFQFQFKNYSSESSE---- 118  
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 --EQFTMDKQLWTKAQQLWYFVNLETOQFQFKNYSSESSE---- 111  
 QKLTVDITRRLQREGYRNRVMAIQFQFKNYSSESSE---- 116  
 QSLTSVDLADENVCWEEKQWRRVKTCDHFFDNRRVPHS--QLHIDT-- 117  
 --DNFTITTHRCMREQ--VSLVDQQLRRRQKDDPSDQSNISSQ-- 113  
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 --VSVLYTTHRCMREQ--VSLVDQQLRRRQKDDPSDQSNISSQ-- 112  
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 VKOSSFEQSSQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 118  
 -VPSFEHQNFQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 118  
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 LDSSDYKDYVQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 118  
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 INSKFEQQAHLSSSKRAIRFDQLAHLADQNTPLNTIEIEG-- 130  
 -LSLTSRNYLNGTSREISIOFFDSLQTKKTERNPESNTTRENNT-- 117  
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 NSFDLVEQNTTNGSERQFVECMONTQFQFKNYSSESSE---- 137  
 --KEIHLQYQTVQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 130  
 --EDIQLYQTVQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 130  
 -----QRDDIYSSIRNTHVFTASRWVYKKSSEKHHRSWHQD-- 103  
 -----ARAGLELRLDGGAMVTHARQFSAKKSSEKHHRSWHQD-- 105  
 -----LSHGDMETNSLHSSSTSKFTLNEQNVSHIEDTETENISADFST-- 103  
 -----LSHGDMETNSLHSSSTSKFTLNEQNVSHIEDTETENISADFST-- 99  
 --LENQEIANTNHNDS--RSQSTILNTTEKYYHTTTSKORDINST-- 117  
 --SQEIANTNHNDS--RSQSTILNTTEKYYHTTTSKORDINST-- 117  
 -----LAERLALTVSQKSTNSTR-- 21  
 -----LEEFLLTTEIKSFQKL-- 21  
 --OSQETNETHIENYHR-KRSVNILNTHRYVYANFSSNENVNAT-- 113  
 --SQEMNTTTHENCER-KRSVNILNTHRYVYANFSSNENVNAT-- 113  
 --KQFLICKSNQVYKESKLTETKEDTTEKKEAFQFQFKNYSSESSE-- 117  
 --SEFLIGSSNQVYKESKLTETKEDTTEKKEAFQFQFKNYSSESSE-- 117  
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 -NSRAEWDRERISDDQNSQVLRLLQFQFKNYSSESSE---- 125  
 -DLSSST-- 118  
 -RITLADNTTTEENEDQVIXSHMTYRRENKTEFKIRKAVLGIRK-- 118  
 -----DICSSEKQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 110  
 --LQSRKYLWQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 114  
 --LQSRKYLWQFQFKNYSSESSEKLCEDMDKKEEPM-SFHN-- 114  
 130.....140.....150.....160.....170.....180

Figure 5A (cont)



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CC Q Q E E Q S G L I N Q K C R K Q Q L K G A N T L Y F H
DH L T S V L S P O S H W S E G D E V K R L Q D S W E D A I L S
DR L E S V S L E D A C S W S S K D E A K R L Q D S W E D Y S H T
DR L E S V S L E D S Q S W S S K D E A K R L Q D S W E D S S H T
DS S R E T K M R E F I D T Q R K D T A T W K D S K T E T
DS S H E T Q K M Y S I E T Q Q K K K S D S W E D S K T E N
DS S H E T Q K I K I D T Q Q K K K S E S W K D S K T E N L G
SI K T I N E S I K S I I K I N Q R T K D A S T S O Y P E
SI K S V S S L G L D K S D Q R T K D A S T I O V L E
AD Q R E A P R N A D I Q K M V E Q K E V N E T K K M M D F
QD Q S Q O P P N A D V L K G I I E Q K E V N E S K K V U G Y
RO E S E Y E D T S T E S F S T C Q O K S K R E K O R F T
SO E S E Y E D S S T E S F S K E F R O R K E K M K E T E E G C N
GH V R L P E E T E M T S H R E D S A G N A G S S O R V E
SH V R L P E E T E M T S H R E D S A G N A G S S O R V E V L
RW S T O D E H S N S S Y R R E R R A E R S K T T T M
RW K S W O H E T A D S Y L Q Q R R E V W S K E T V L L
DT L T S N T Y P D N L N H T A N W S E N D A D R I N
DE L T N N E Y P S N N L K D I S M N S R E D N E A E I V N
EY W K S S E T L E D L K T G F T L O R K K E K A A E E I F A
TY W K L E T I T D V K T G F T E R K K S E E A D E E I F T
OQ S R V S P A K D E F T O K Y O R R V E D S V D K V D D
OQ S R V S P A K D E F T O K Y O R R V E D S V D K V D D
SR C T Y R D E G L V L N R R R R S N S R L W N V N T K
SR G T O H E D E Q V L N Q R R Q E L N S T S W N V N T N
RR R S T Y E A S E Q O F F L K R Q R P A Q H A S T E F
RR H A S T Y E A S R R O Q S F L K R Q R P A Q H A S T E F
RR H A S T Y E A S R R O Q S F L K R Q R P A Q H A S T E F
RR E T Q T E S T E D P E S F K E F R R E L I L D Q Q H V E L S
RR E T Q T E S T E D P E S F K E F R R E L I L D Q Q H V E L S
O Q O Q E F E S T F E E T S K W R K O G A A R H R G E
QR Q L H P E A S E F E D E S K K R R R R R A S H R Q G E
GE Q S E E F A E I S D L R Y E R R G E R D E K N S T O T V O L E A T E T C C P L O
GE Q H E A P A E I S D L R H E R R G T D S S N A T A P S V O L S T E T C C P L W
GL K S E K E V F E N N Q O Q R G L S G K E I O K T E V F
GL K S E K E V F E N N Q O Q R G L S G K E I O K T E V F
GN K S S S P E L M F F O Q O K S E N S T V I R E A D K I V S
GN K S S D S O T M F F O Q O K S E N S T V I R E A E I V S
GN N S R S D Y E D F Y N L K K Q O Q R N R O D P W A V S R R K L I S
GR D S D S Y D E S N Y V L R K Q O Q R N L R D Y A V R E V T K L I S
GH E E Q H E S S A Q O E T C R T E E H O D K V E E F
GR E E Q H Q S S A Q O E T C R T E E R E D K V E E S
LE T H A D T W E S K V I C O H R R C Q E A A W T L E P E L K T
LE T Q A P W E D Q K A T C O R K E C O A E A W T R L E P O L K
HR O N S E I S Q A S H E E R H E E R T L S E G H T W E E E L T L K
OR C N S K V S Q V S H I E E Y E E R R R L L G H S W E D A S V S L K
H C I T S I S A E E M T L S A A K K Q E E A W E O Q H R D H I V
R C V T A G I N L A E L L T S S A K K Q E E A W E A R H K D R I V
Q R E M E T E D N O V A E Q R R T S S E W K L D C E Q D D
Q R D N V S E E N G A E Q R R R R T T N W T L D C E Q V N S G S G V I G
D D Y O M E N P O N I S R C F E E E V N N S Q T E T H N O F Y Q E A K C E N E
A L Q K N Q N R S R C T E E E N N T Q T D R H N L E E E D K C O N S E
C E K K S I E L C I F R C D E E E R E D D T T L V T A T V E N
I D R K S T E G E I F R C T E E E V R E D D I S W E S A T D K N D
T R S Q E K V S E F H C D E K H N T R N C Y L O E K M T N
S Y Q E K L S F D H C N E K Y N T R N G H I O K E K I A N
H C L R K O P R T O K S M L D Q O L D H R K N T O E G T E N L I N V S G
H C T S A E S T A S T R D Q O V O Q S A E G S T R K V V V
F H K M R S H N R K R R L O T O K R M Q V I T E Q V R D R
H R V A R N R H K L S T Q N O S S E S E O E Y N S I E
Q E N N N R F L N H C E R L Q R T D W D H S W T E Q S D Y R
Q E R K S R H I K E R C Q L Q R S N R D R S W T E L I N H
A T I C S D S Y C D L E Q R S E F D T E W Q S K O E N T
D O T S R E A S Y G O V E Q R E S N D D E D A Q T T S G
S T Y K N D R E S F F H R S N I N E K L R K E S M E L V K L V H N T T I N
S S L K N D R G S L E H E S N T E K L O N R T E E V L V L N T M I S
A K S H L E G N A K I N L C E E K K S N S V O E Q R N V T I K G
V T S Y L G N T K I N L O E E K K A N S K K E V R N A T I R G
Q S H Q T V E N L E Y Q O E L K V O Q S R I E T S N V I V E N Y
Q E N E T V P A L H E E L N I O E S R L N I S N T I V E N Y
N A I T K V S I R N N F T L O E E H G E K M M Q Y N V S K V N
K A N T K V S H N N Y T L C O K Q O Y G E V I H E R N V S H M S
D V T N T S N L O K K Y K V M D A R O E K D E N K W H V N L S
D E L T N A H L K K K Y K K K I D A R E A R G E S N W H V S L F H
S G S E M P A R S N Y N R Q V O R T H O N F E T T R S E R N H T
Q T C E N E F I E N R T E E N Q R H S K L E N L S R N L V S Q M R
Q R K S E P S S S F E D K T E R R E N D S W E D K V E L D
M O E I K E L V S S D K T E R R T V N S T S W M E V N A K N
M O Q K E R E K I R F E V C M R R T V N S S R W T E V N E N
K I Y K S K T M E K F C R K K T T T N Q T W S K E D A N
K I Y S O S Q T T E K S C R K K A T T N Q T W N K E D T N
...190.....200.....210.....220.....230.....

```

Figure 5B



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LHSKDO E CCH QAEV T Q  
 LLEALO E CCH PATA T Q  
 NTSQ T GHEH MSST V R  
 SKFO N EPKL LNSI A R  
 SNFO N EPKL LNSI A R  
 LQNAHS A NAE BSTR W R  
 LDRAHS D SOE PDTS C R  
 RVNS D SOE PDTS C R  
 DTASTRSS T OOK PFTE V R  
 DIMSERTS T OOK PFTE V R  
 ILTTS T YSK MDKE E R  
 IWLTYSYR MDKE E R  
 DKTSATV C RKN S  
 QKGAFTVEKTSTEVOCKG N C  
 ILEGRTECV SNR RTTR T A  
 EGRTTECV SNR GTR T A  
 VKDLOHHCV HDW SELR V Q  
 VAQYQCV HDLR EVK V Q  
 VTYLES R AASTYKSGIS R R  
 VTYKEERS EINI MSOVY T R  
 QOTEK LSH FGOK L Q  
 GHQOTQK FDY FGOK L Q  
 VSNQTSR AGK PGTV F Q  
 VSNQTSR AGK PGTV F Q  
 AKGRD LD K PFTE E Q  
 AKGRD LD K PFTE E Q  
 AGLEEV TD V GLE A R  
 IGLEEV TD V GLE A R  
 IGLEEV TD V GLE A R  
 DGTAT TD Y GKE I Q  
 DGTAT TD Y GKE I Q  
 IEATS I RAR PRAR Y Q  
 IEATT I RNSK PHAK C Q  
 RPHS S L O P C O P T E W O D G Y K T S E S E A H A L T A E C S C L S C L O G N S W Q  
 MPNE S L O P C O P T E W O D G Y K T S E S E A H A L T A E C S C L S C L O G N S W Q  
 DAKSKS S L E V D CAV A Q  
 DAKSKS S L E V D CAV V Q  
 ATSL D S L PGSS E Q  
 ATSL D S L PGSS E Q  
 VDSRS S L P E R K D S S E Q  
 VDSRS S L P E R K D S S E Q  
 LEARGTLE R PRSR R Q  
 LEARGTLE R PRSR R Q  
 IELTVE OD E EATE K Y  
 DELTVE OD E EATE K Y  
 OKQEW CLETTEDTO E Q  
 ORQOW FLEM I STS E Q  
 VTW I E A E D C H I E R  
 VTW I E A E D C H I E R  
 DTESCLOP E N V A Q E Q R R  
 DICSMSESCE SE NMAQE Q R R  
 FERNVENTSOMV E G L E D T L N T E R  
 SDRNME T S C O L P G L D A V T R  
 ET T K T E N E T R O L C V R S  
 MKLKR N E S S D L C F R C  
 AFISI D D S K O O  
 KFISK D D S T S O  
 DLENRYN S S E P R A K S K  
 BETRATES E A H G K K  
 TSCOLN E T T Q  
 H W P N S A I S R K S  
 H K S R S D E Q K R Y T R R S  
 E H S R S D E L K R Y T R R S  
 C N S T I E G I D K E C S W  
 E C C D T V G G H P A R C D R  
 G K D T L H N S A S D M L E C A I E  
 G K D T V O H N T S D L E C A T S S  
 V N S S L A L D K N E Y T L T R  
 A E D S T H A V D K N E Y T A I R  
 S T V K W N O V L S E S E L E C A T E R  
 S T V K R E E A V R N T S D I E L E C V K E R  
 E E T S E E C A T E M R  
 A N L S D D E D T K X F  
 S T K T L O R K O C A A M E K  
 T R T T E O R K R K A M E K  
 L T I K D T L C L T E L F E Y N T R  
 A V S V D O V C G N E E N O L Y  
 A T S T S D E E C T S E R  
 R K D I N Q T N L G C O F T E V A  
 C K O V C N L T O F T E V A  
 F T Y Q O S E Y E R D S K V Q  
 F T Y Q O S E Y E R N I K V Q

240 . . . . . 250 . . . . . 260 . . . . . 270 . . . . . 280 . . . . . 290 . . . . .

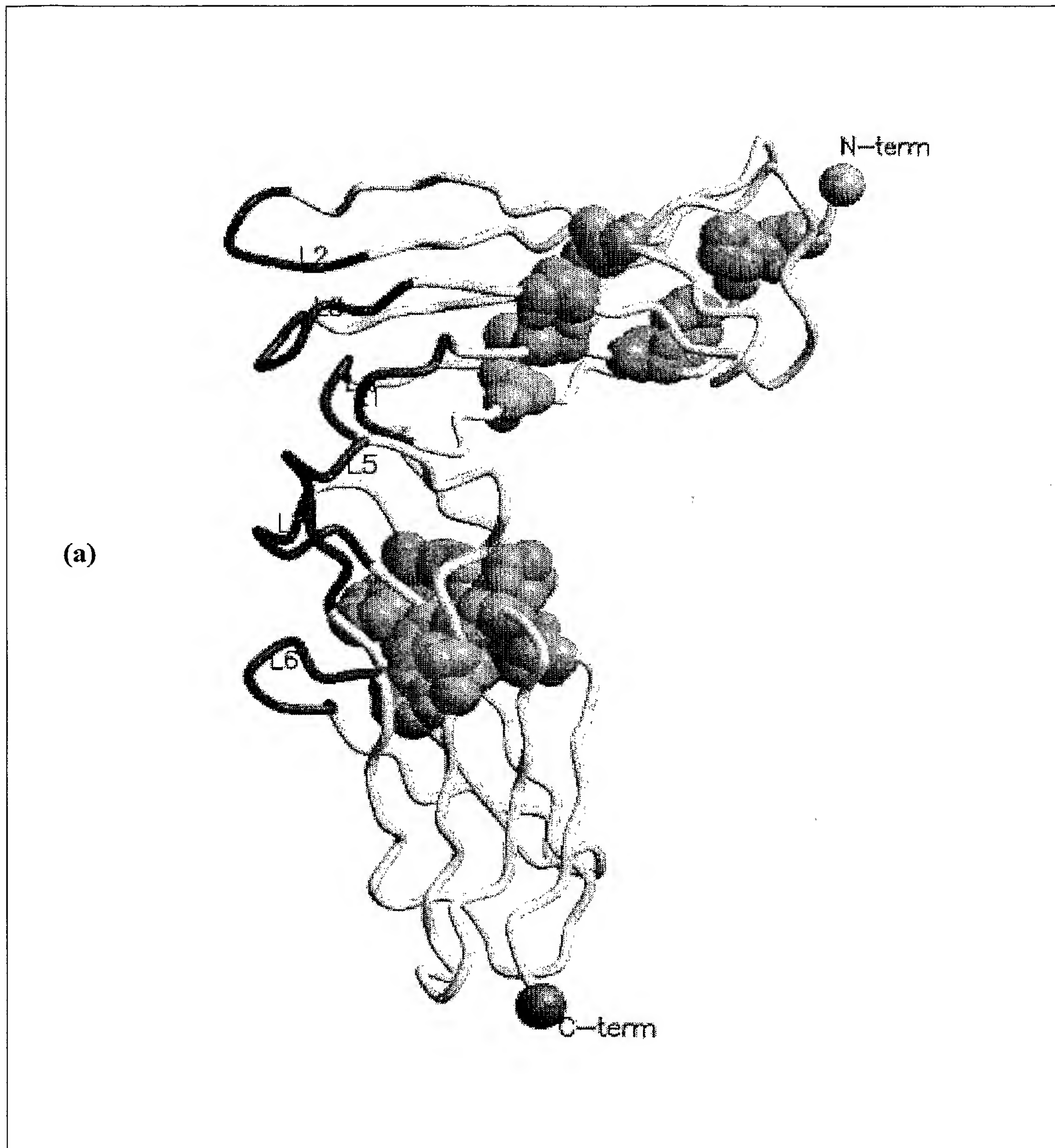
Figure 5B (cont)



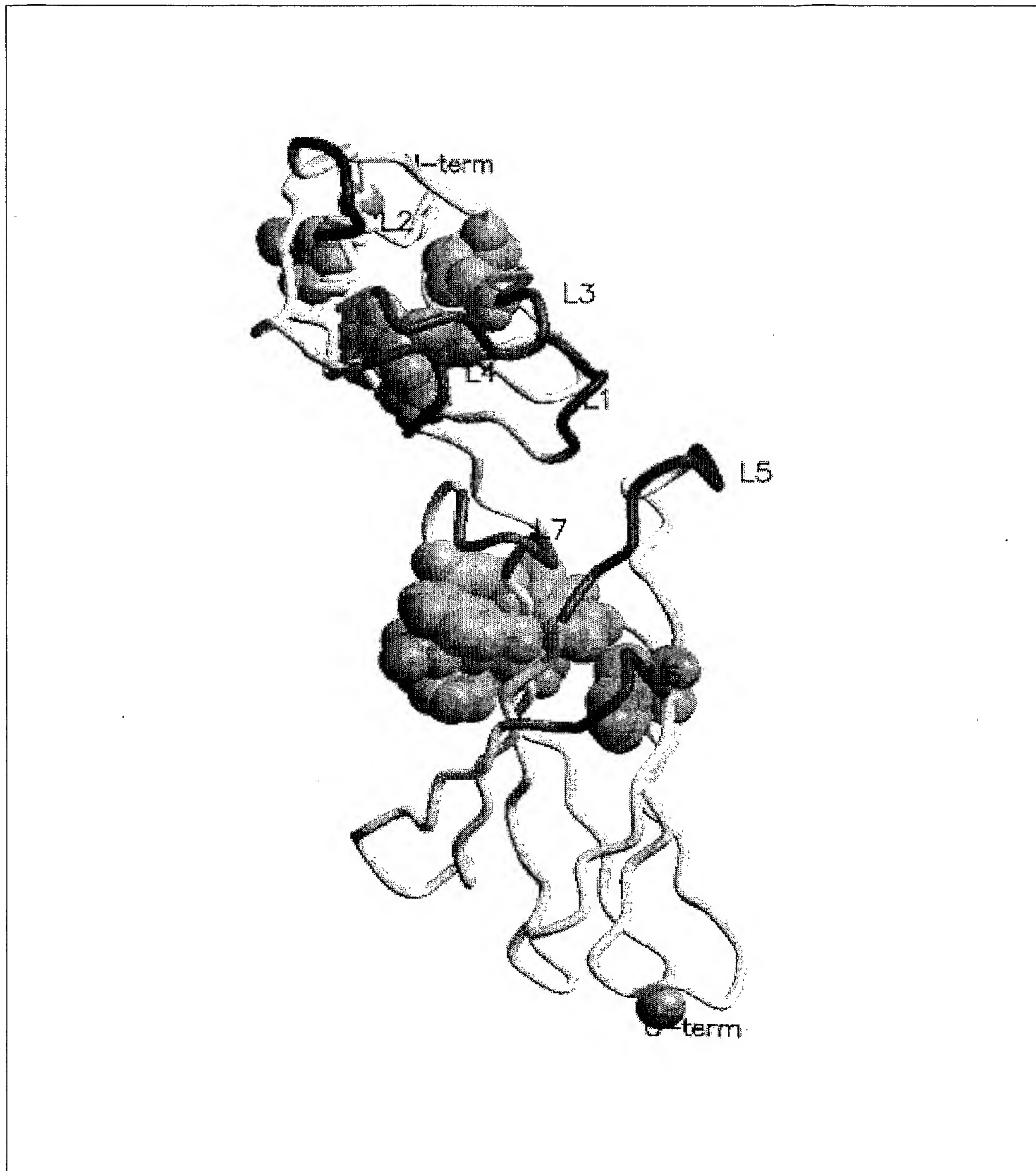
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### Figure 5B (cont)

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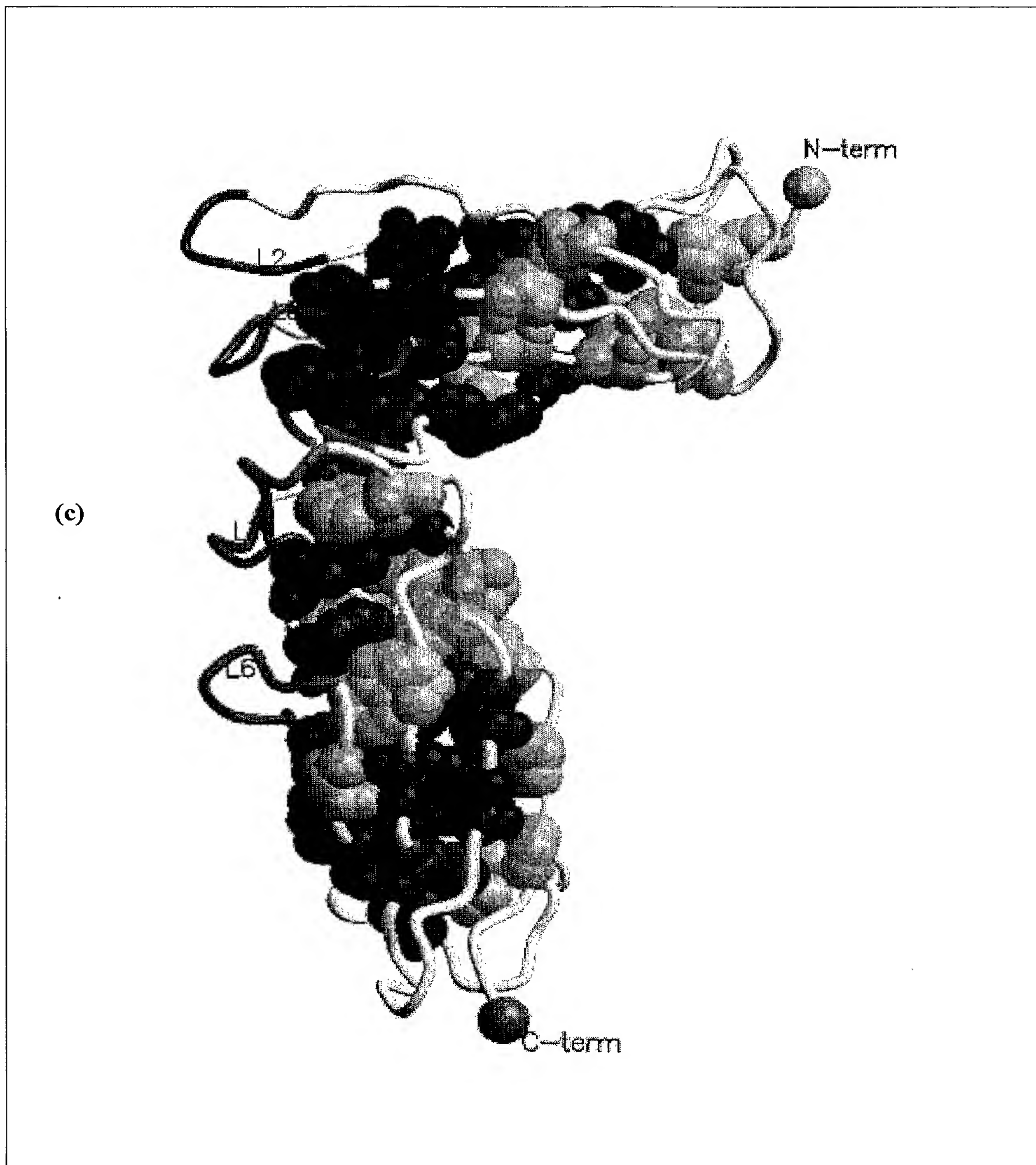
**Figure 6(a)**



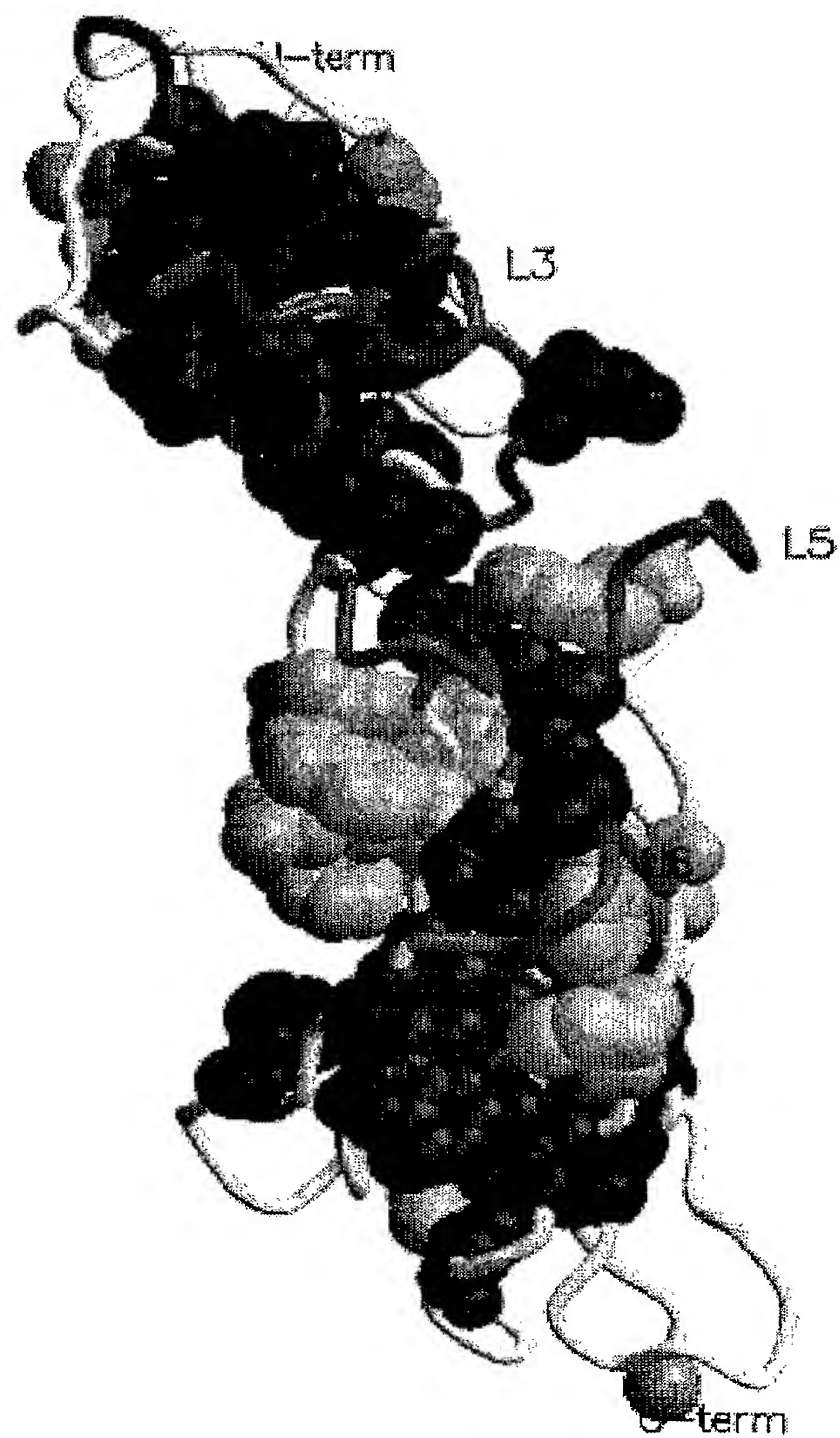


**Figure 6(b)**



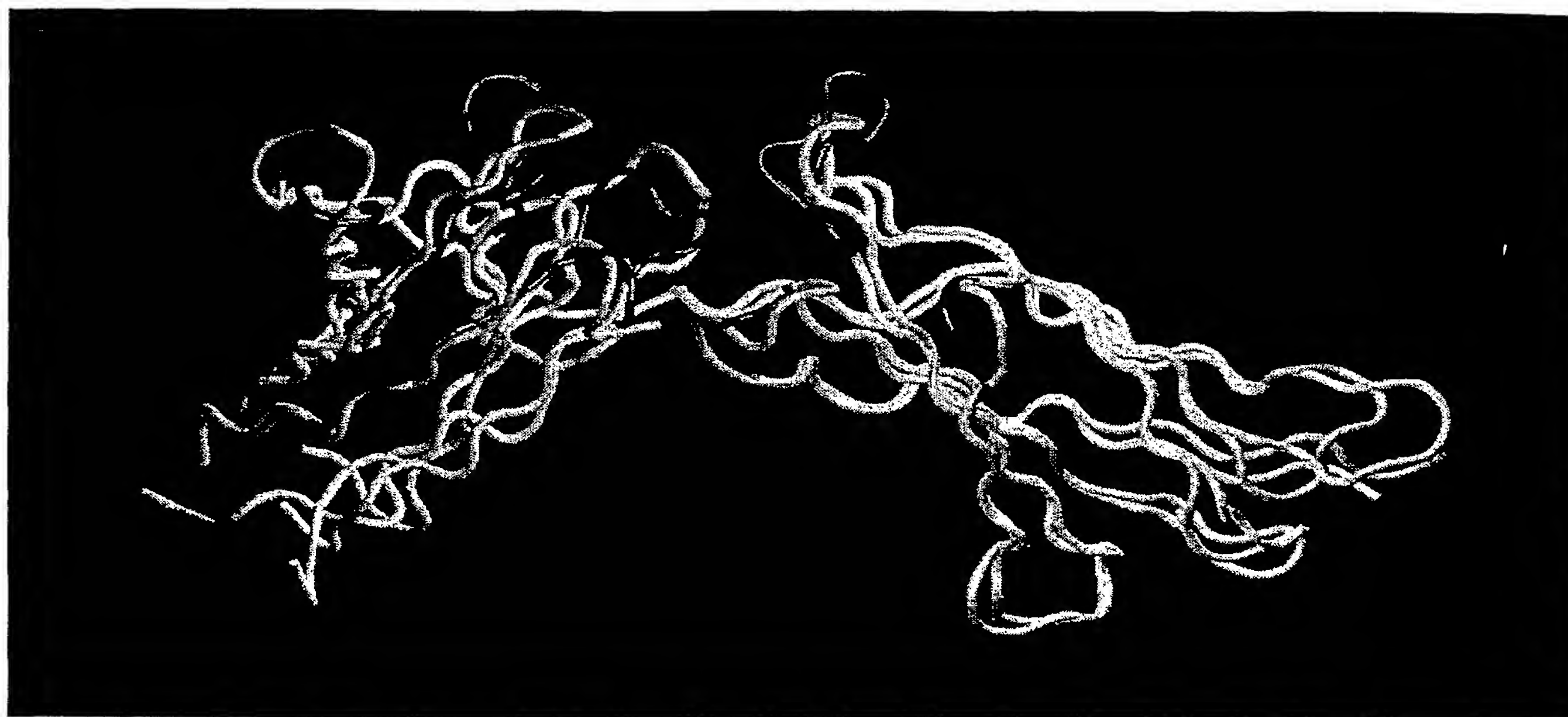


**Figure 6(c)**



**Figure 6(d)**

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**Figure 7**